CLAIMS

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- 1) DNA sequence of the htfIIIA gene coding for a protein having the biological function of human transcription factor hTFIIIA.
- 5 2) DNA sequence of the htfIIIA gene of the human transcription factor hTFIIIA according to claim 1, coding for the amino acid sequence SEQ ID N°2.
 - 3) DNA sequence of the htfIIIA gene according to claim 1 e^{-2} containing the nucleotide sequence SEQ ID N°3
- 10 4) DNA sequence of the htfIIIA gene according to claims 1 to property containing the nucleotide sequence SEQ ID N°4.
 - $^{\circ}$ 5) DNA sequence according to claim 4 having the sequence beginning at nucleotide 176 and finishing at the nucleotide 1270 of SEQ ID N°3.
- 6) DNA sequence coding for the human transcription factor hTFIIIA according to claim 1 to 5 as well as the DNA sequences which hybridize with it and/or show a significant homology with this sequence or fragments of it and which code for a protein with the same function.
- 7) DNA sequence according to claims 1 to 6 comprising modifications introduced by suppression, insertion and/or substitution of at least one nucleotide coding for a protein with the same biological activity as human transcription factor hTFIIIA.
- 25 8) DNA sequence according to one of claims 1 1 as well as similar DNA sequences which have nucleotide sequence homology of at least 50 % or at least 60 % and preferably at least 70 % with the said DNA sequence.
- 9) DNA sequence according to one of claims 1 to 8 as well as similar DNA sequences which code for a protein, the AA sequence of which has a homology of at least 40 % and in particular 45 % or at least 50 %, rather at least 60 % and preferably at least 70 % with the AA sequence coded by the said DNA sequence.
- 35 10) Polypeptide having the function of human transcription factor hTFIIIA and with the amino acid sequence SEQ ID N°2 coded by the DNA sequence according to one of claims 1 to 9 and the analogues of this polypeptide.

- 11) Process for the preparation of the hTFIIIA recombinant protein having the amino acid sequence SEQ ID N°2 comprising the expression of the DNA sequence according to one of claim in an appropriate host, then isolation and purification of the said recombinant protein.
- 12) Expression vector containing the DNA sequence according to $\frac{1}{2}$ to $\frac{1}{2}$.
- 13) Host cell transformed with a vector according to claim 12
- 14) Plasmid deposited at the CNCM under the number I-2071.
- 10 **15)** Use of the human transcription factor htfIIIA gene or of the human transcription factor coded by this gene according to one of the claims 1 to 10 for the preparation of compositions which can be used for the diagnosis or treatment of diseases linked to a disorder in transcription control.
- 15 16) Use according to claim 15 for which the disease concerned is cancer.

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